

Figure 1

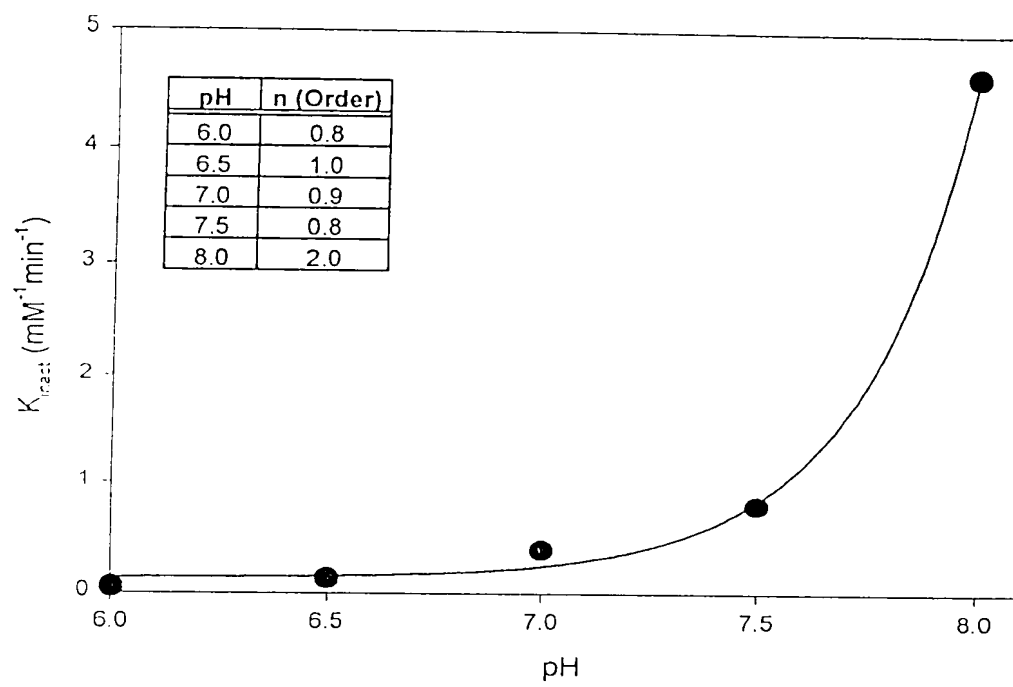


Figure 2

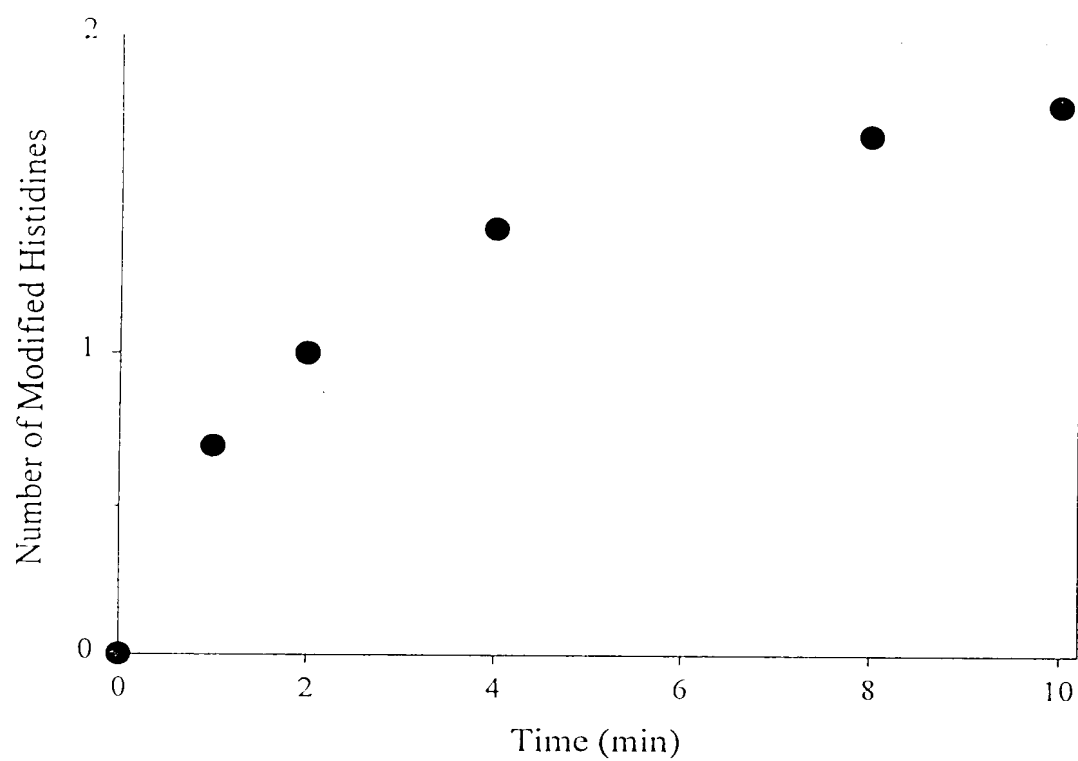


Figure 3

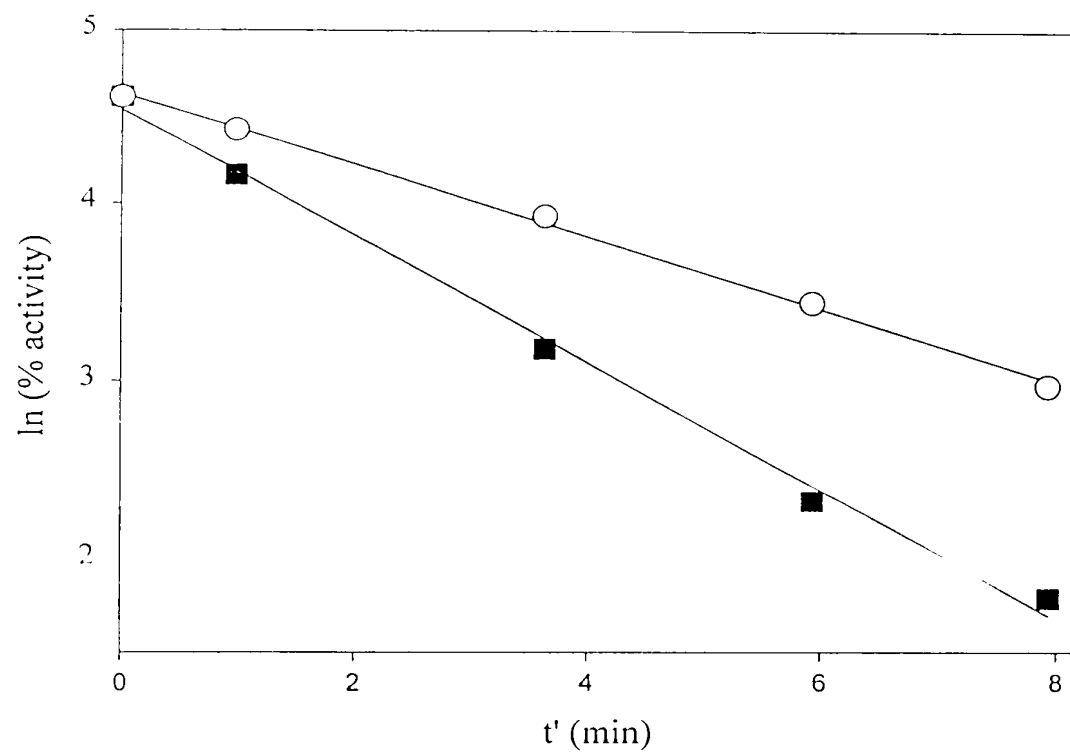


Figure 4

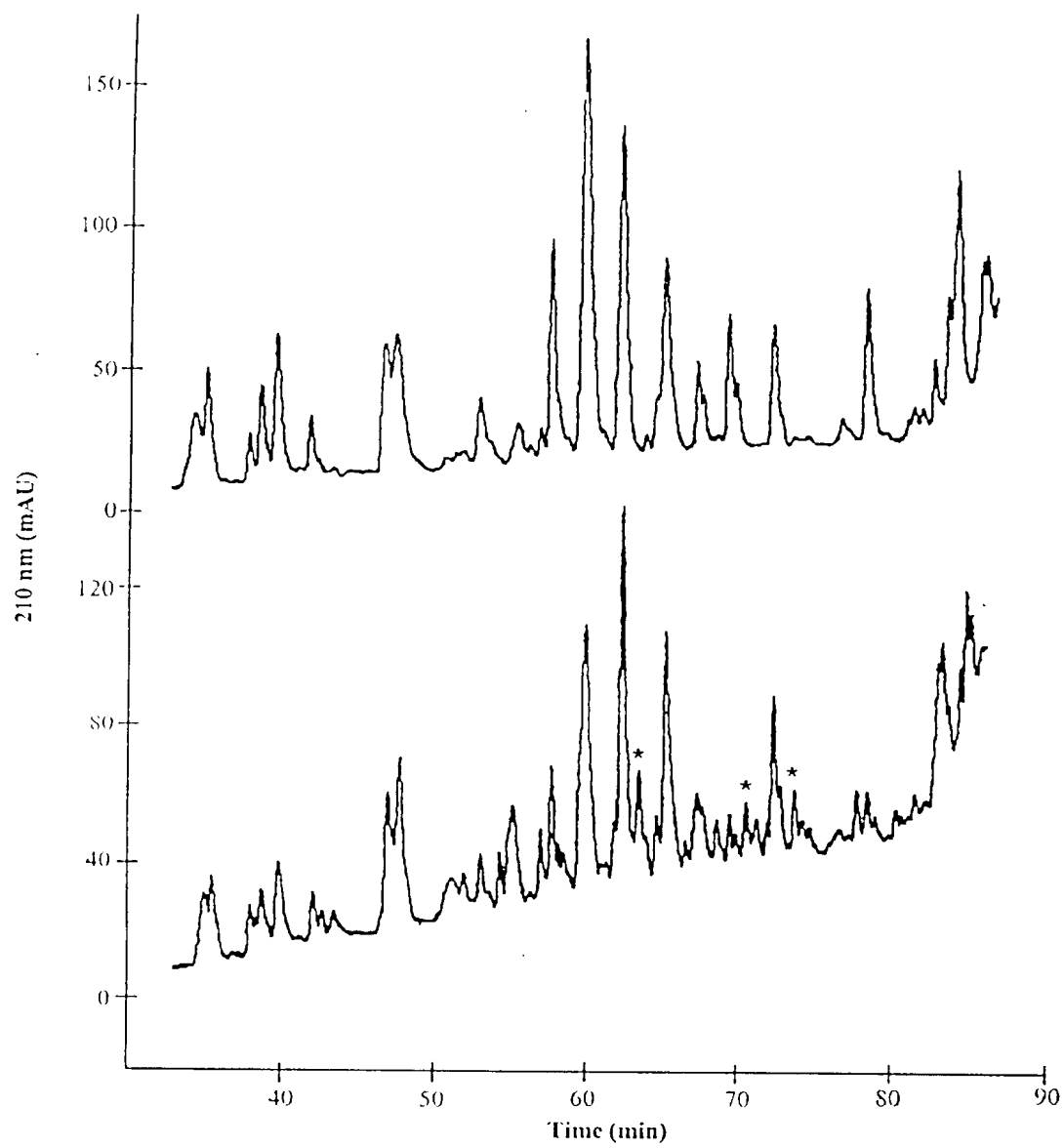


Figure 5

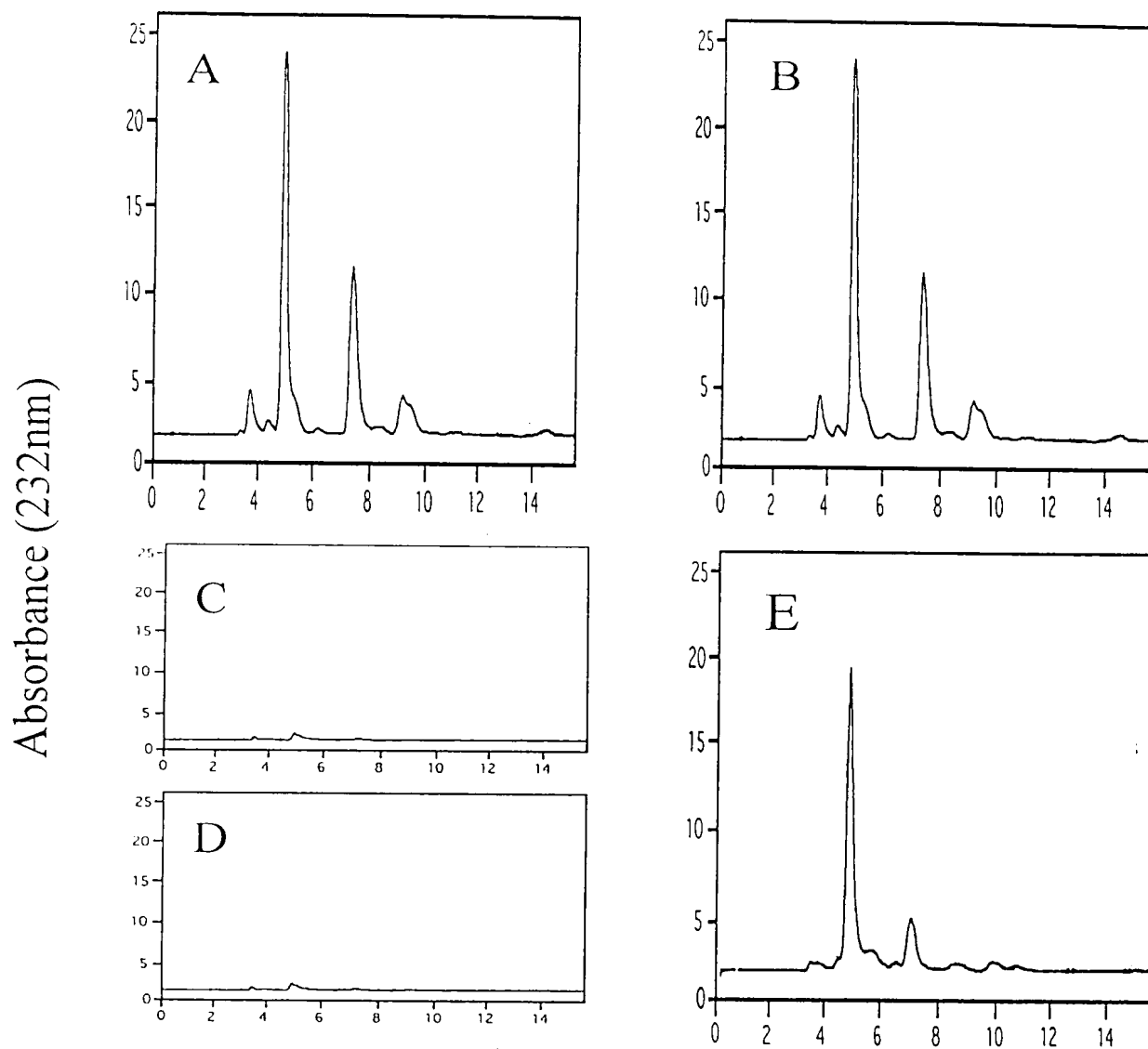


Figure 6

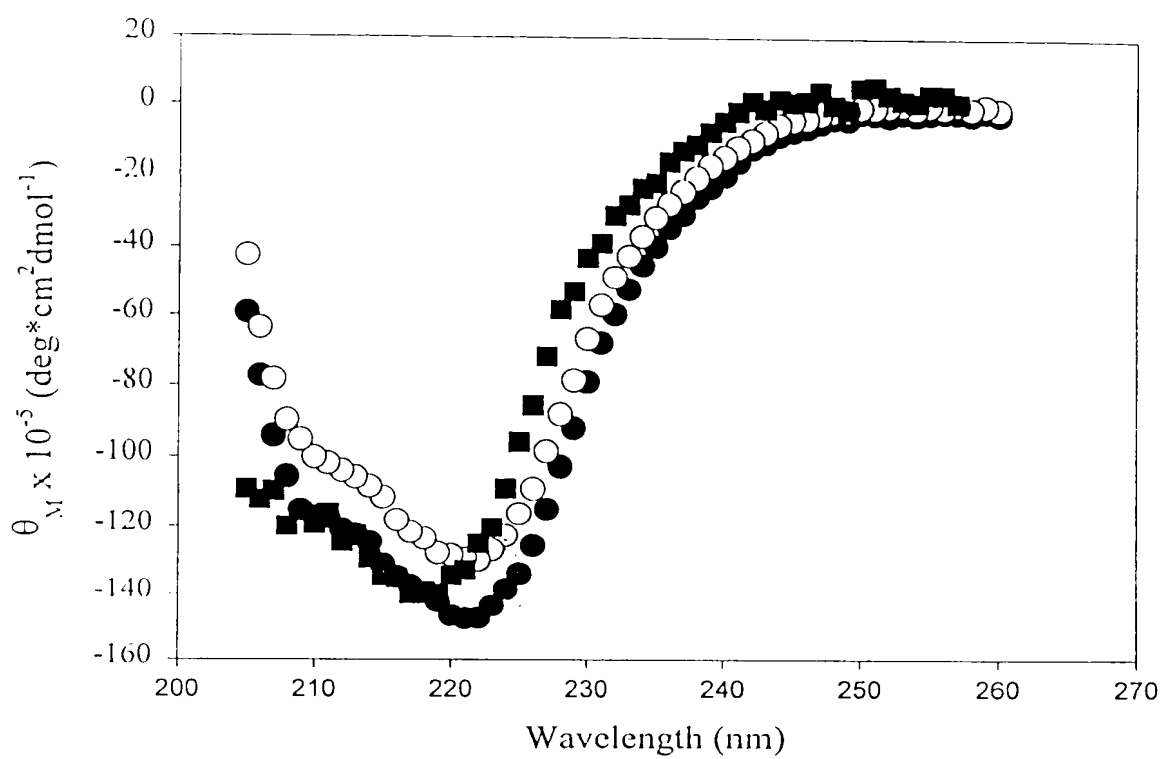


Figure 7

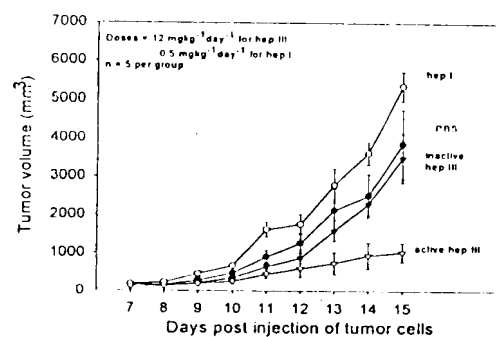
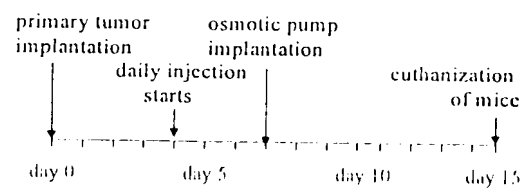
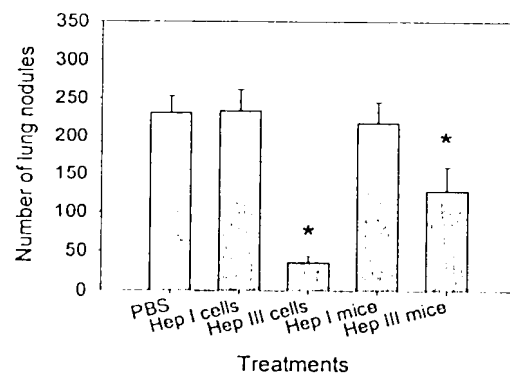


Figure 8

Figure 9



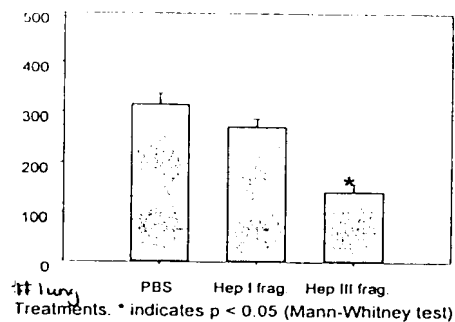
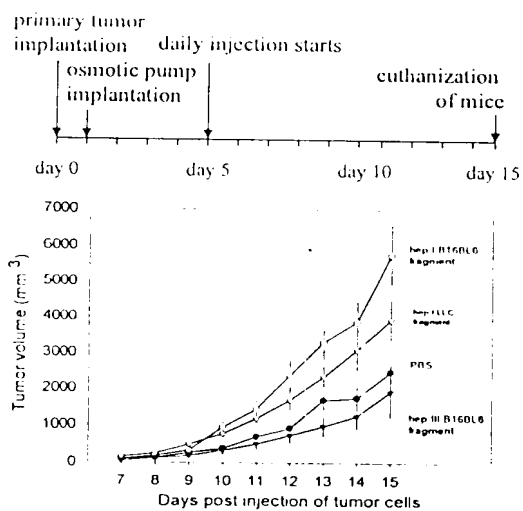


Figure 10

Invasion assay for B16 and 2OST(-) B16

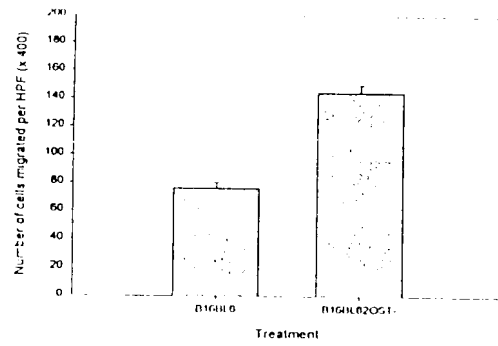


Figure 11

Tumor growth as a function of time

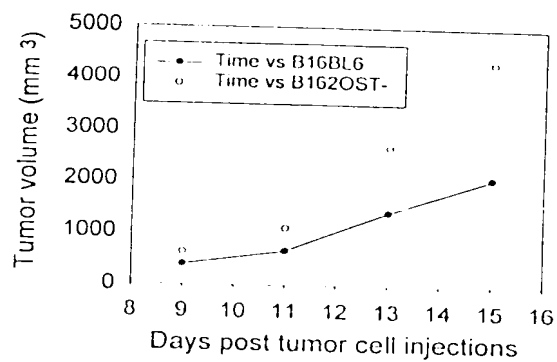


Figure 12a

Tumor weight at the time of sacrifice

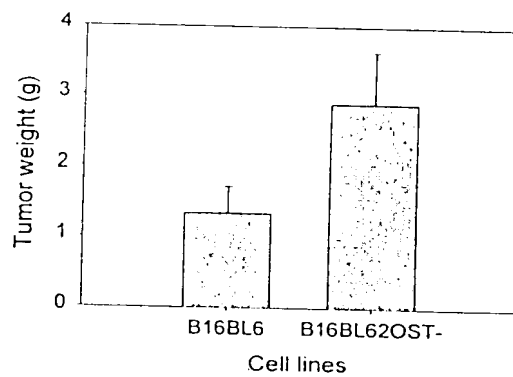


Figure 12b

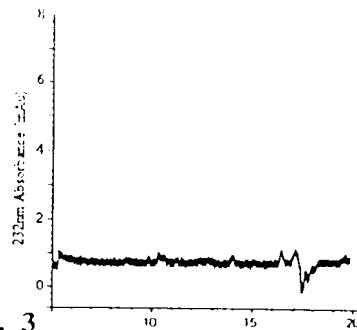


Fig. 3

Sacch. code	Hep I	Hep III
D $\Delta U_{25} - I_{INS,GS}$	1	10
9 $\Delta U_{25} - I_{INS}$	0	6
5 $\Delta U - I_{INS,GS}$	11	8
C $\Delta U_{25} - I_{NAC,GS}$	3	5
1 $\Delta U - I_{INS}$	23	12
8 $\Delta U_{25} - I_{NAC}$	8	18
4 $\Delta U - I_{NAC,GS}$	13	8
0 $\Delta U - I$	41	33

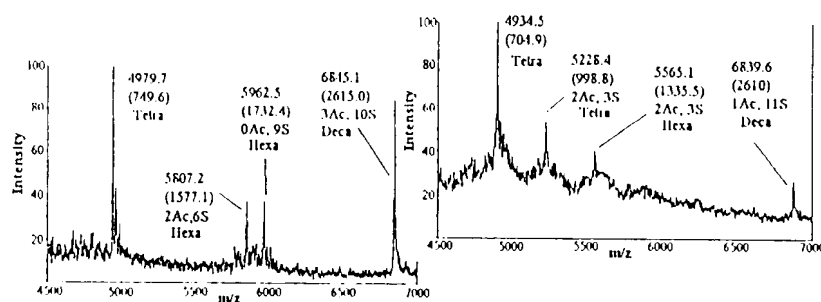


Figure 13

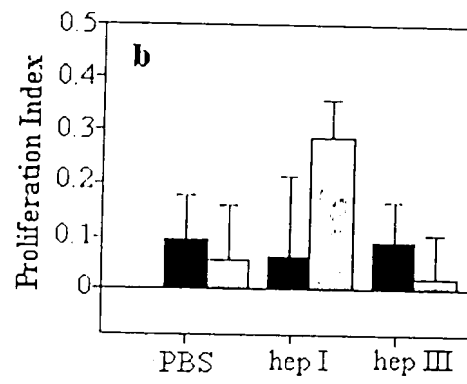


Figure 14

Response	FGF2	Hep I frag.	Hep III frag.
Clock hours	2.4 ± 0.24 [#]	3.4 ± 0.19	0.2 ± 0.12
Vessel length (mm)	1.9 ± 0.05	2.0 ± 0.07	0.4 ± 0.22

The diagram illustrates the mechanism of FGF2 signaling inhibition or activation by cryptic regions of heparin fragments. On the left, a cell is shown with FGF2 (represented by a small house-like structure) binding to its receptor (a large, multi-subunit protein). An inset shows a detailed view of the heparin molecule, which is a long chain of repeating disaccharide units. The heparin molecule is shown with 'Cryptic inhibitor regions' (indicated by arrows) and 'Cryptic promoter regions' (indicated by arrows). The heparin molecule is also shown with 'Hep I' and 'Hep III' fragments. The 'Hep III generated fragments' are shown with a 'No' symbol (a circle with a diagonal line) over them, indicating inhibition of signaling. The 'Hep I generated fragments' are shown with a 'Yes' symbol (a circle with a checkmark) over them, indicating activation of signaling.

Figure 15

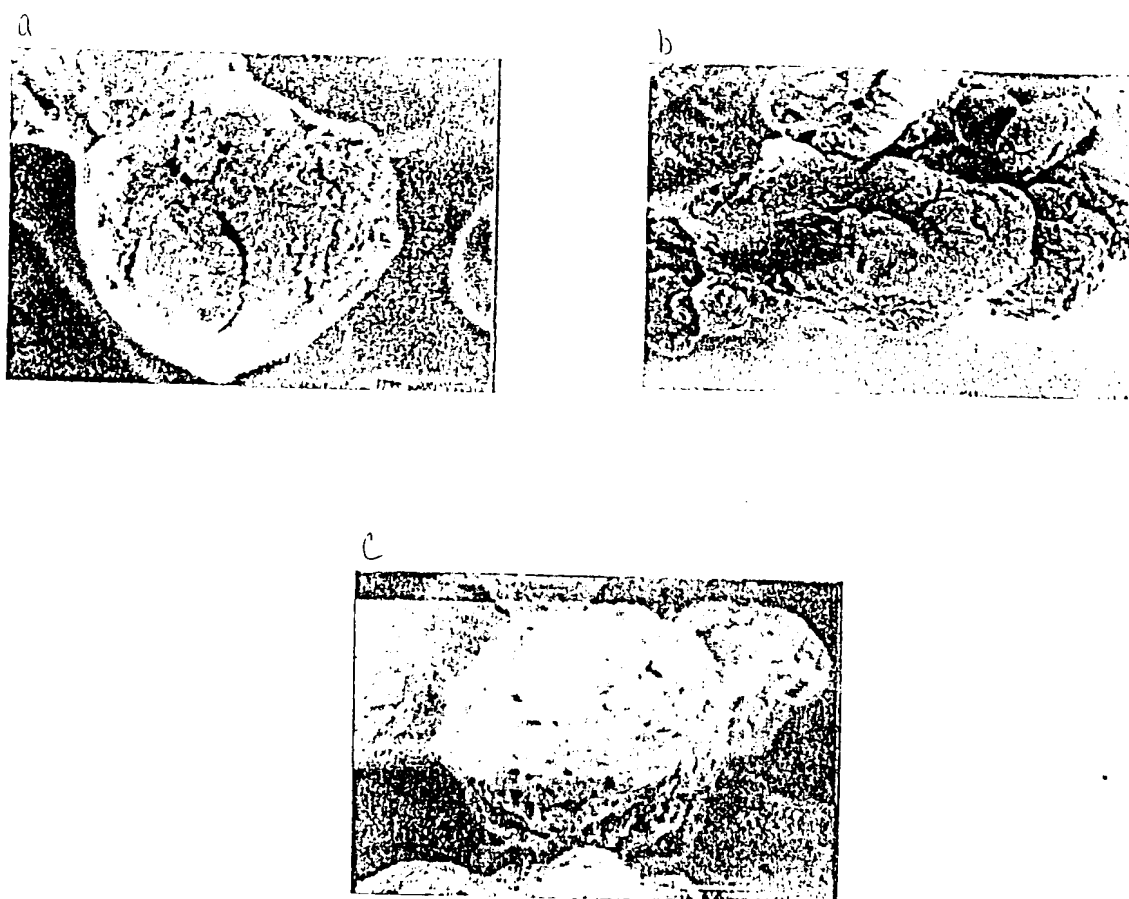


Figure 7